Chapter 5
Future Operations without Improvements

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Signalized Corridor Overview

Growth will have the greatest impact on mobility through the signalized corridor as traffic volumes and demand increase. The signalized corridor is three and one-quarter miles in length. The intersection spacing is generally one-half mile or more, although the distance between Kennewick Avenue and Clearwater/Vista Way is less than one-quarter mile.

The signalized corridor has three distinct sections based on the posted speed limit, level of access control and roadside character. The first segment is a higher speed (50 to 55 miles per hour) section and partially controlled. It includes three signalized intersections: Hildebrand Boulevard, 27th Avenue and 19th Avenue. The second segment begins in the urban (modified control with a 35 mph speed limit) section and includes four signalized intersections: 10th Avenue, 7th Avenue, Kennewick Avenue and Clearwater Avenue/Vista Way. There are numerous commercial business approaches in this section. They are restricted to right in-right out movements onto US 395. The third segment contains a single intersection (Yelm Street) where it is again partially controlled and has a 45 mph speed limit. These eight signals are all within the corporate limits of the City of Kennewick. All signals within the corridor contain vehicle-detection (induction loops or video) and all legs of each signal are equipped with emergency vehicle preemption. The change interval (when the signal is yellow or there are red lights on all four legs) is set consistent with the operating speed of the highway and for enhanced safety.

The WSDOT, in cooperation with the City of Kennewick, operates the signal system to maintain the highest level of operating efficiency and safety. The efficiency analysis and signal timing plans consider both US 395 traffic and city street traffic. The coordinated timing plans are designed to provide the best mobility performance (progression through the corridor) as well as serve the intersecting city streets. Peak traffic volumes occur in the morning, around noon, and in the afternoon periods with the afternoon peaks being the heaviest. Signals are timed to address the heaviest movements in the afternoon peak period. On weekdays, these plans begin at 5:30 am and continue throughout the day until 9:00 pm. On weekends, coordination plans are active from 10:00 am until 7:00 pm on Saturday, and from 11:00 am until 6:00 pm on Sundays. Outside these times, the signals operate as "free" or on-demand for each individual intersection leg to better serve the reduced traffic volumes.

All signals have pedestrian facilities to enable people to cross the highway and intersecting city streets. A "pedestrian call" activates a pedestrian signal in order to safely cross the roadway. Unfortunately, pedestrian calls reduce the operating efficiency and capacity of the highway and local streets. Additional crossing time is allocated to ensure pedestrians can cross safely. However, this disrupts the traffic signal coordination plan and the traffic progression on the highway reducing its operating efficiency and capacity. During peak periods, it can take two to three signal cycles to return to signal coordination. The 27th Avenue, Kennewick Avenue and Clearwater Avenue/Vista Way intersections all experience significant numbers of pedestrian calls (20 or more) between 4:00 and 6:00 pm.

The information below identifies each signalized intersection and their current and projected (future 20-year) performance.

Segment 1: I-82 to 10th Avenue

Hildebrand Boulevard

In response to the Southridge development, the fourth leg of this intersection was constructed and a traffic signal was installed in 2007. To the west, Hildebrand Boulevard is classified as a principal arterial and serves as

the primary access point for the Southridge area. For northbound motorists, this is the first signalized intersection on US 395 after the free-flow condition of Interstate 82. A "prepare to stop when flashing" warning sign is in place to alert motorists of the upcoming stop condition. During the PM peak this intersection operates at an LOS B. The majority of traffic travels through this intersection along US 395; side-street volumes are low. During the weekday AM peak, when side-street volumes are the lowest, WSDOT operates this signal as on-demand until 11:00 a.m. rather than 5:30 a.m.

The City of Kennewick is currently working toward connecting Hildebrand Boulevard to the Steptoe Roundabout. Due to an absence of north-south arterials on the local system, this connection will significantly increase traffic on US 395. With the bulk of traffic coming to and from the Southridge area, this intersection is projected to fail (LOS E) in 2029 and degrade to LOS F 2032 as Southridge develops. Aside from the through movement along the highway, eastbound lefts are projected as the heaviest movement in 2032 and will have the greatest impact on intersection operations.

There were 16 collisions related to this intersection within the 10-year collision study period. A single severe collision occurred in 2010, resulting in two injuries and a fatality. Since the installation of the signal, there have been frequent and validated reports of southbound trucks disregarding the signal and running the red light in an effort to maintain speed. This issue is attributed to the significant grade south of the intersection.

Today, pedestrian traffic is light; however, as Southridge develops, the number of pedestrians crossing US 395 is expected to increase.

27th Avenue

27th avenue, a principal arterial, has experienced significant improvements over the last decade. With two left-turn lanes, two through-lanes and a right-turn lane for every leg, this intersection is considered to be at "full build-out". Traffic volumes on 27th Avenue are equivalent to the volumes on US 395. For optimal operation, the signal cycle length is distributed evenly among the four legs of the intersection. This limits the signal's ability to operate in coordination and absorb incidents as well as fluctuations in the traffic stream. During the PM peak hours, this intersection operates at an LOS D. Further, the WSDOT Freight Systems Division has identified the 27th Avenue intersection as a top freight bottleneck. Outside of the PM peak, volumes are drastically reduced in all but the westbound direction allowing the signal to operate effectively and efficiently.

The intersection is projected to fail in 2018 and drop to LOS F by 2032. Volumes on US 395 will exceed the projected volumes on 27th Avenue causing motorists on the side-street to wait in queue for multiple green lights before proceeding through the intersection. Because of the build-out condition, future improvements will be limited.

Of all intersection related collisions, 18% occurred at this intersection. Although 92% were property damage only, there were 11 injury and one fatality (2004) collisions.

The increased roadway width, combined with significant pedestrian activity in the AM and PM peak periods causes considerable delay and disrupts signal coordination. Expected increase in pedestrians will further degrade signal operations.

19th Avenue

19th Avenue is classified as a collector primarily serving residential areas in the vicinity of US 395. To the east, 19th Avenue extends only one-half mile before terminating at Ely Street. During the PM peak hours, this intersection operates efficiently at LOS B. There are low traffic volumes on the side street but mainline volumes

are higher than intersections to the south. Throughout the rest of the day, including the AM peak, US 395 traffic is significantly lower and side-streets remain low.

In 2032, this intersection is projected to operate at LOS C. Through traffic on US 395 is expected to increase significantly. However, due to the built-out nature of the areas served by 19th Avenue, modest growth is projected for the side-street and the intersection will continue to have sufficient capacity.

The signal at 19th Avenue allows only permissive left-turns from the side-street. These left-turning vehicles must wait for a gap in through traffic before entering the highway. Because of this, a higher percentage of the total collisions at this intersection resulted in injuries. At this intersection, there were 31 collisions with six resulting in injuries. Half of all collisions were rear-ends. There were no fatalities associated with this intersection. On the side street, left-turning vehicles must wait for an acceptable gap in through traffic before entering US 395. Due to the lack of a protected left phase, or "green arrow", many collisions were caused by motorists failing to yield right-of-way.

Pedestrian traffic is highest just before the PM peak. On weekdays, pedestrian calls disrupt signal synchronization only once an hour. Increased pedestrian traffic could potentially have a significant adverse impact to signal operations.

Segment 2: 10th Avenue to Yelm Street

10th Avenue

10th Avenue is classified as principal arterial. During the PM peak hours, 10th Avenue currently operates at LOS C. Traffic volumes are highest in the southbound direction and side street volumes are substantial. As it exists and operates today, the amount of southbound left-turning vehicles have the greatest impact on signal operation. Pedestrian calls are highest during the mid-afternoon and prior to the PM peak period. During the PM peak, this intersection averages approximately four calls per hour.

The intersection is projected to fail in 2019 and fall to LOS F by 2032. As traffic continues to grow on US 395, queue lengths for northbound and southbound through movements will exceed signal cycle lengths. Southbound left-turning vehicles will block the inside southbound lane due to insufficient storage length.

Of all intersection related collisions, 20% (175) occurred at 10th Avenue with 21 injury collisions. Severe collisions are relatively rare at this intersection.

Today, pedestrian traffic is modest; however future increases in pedestrian volumes will contribute to further delay.

7th Avenue

7th Avenue is classified as a collector primarily serving residential areas in the vicinity of US 395. During the PM peak hours, this intersection currently operates at LOS A. There are very low traffic volumes on the side street but volumes remain high on US 395.

In 2032, this intersection is projected to operate at LOS C. Through traffic on US 395 is expected to increase significantly. However, due to the built-out nature of the areas served by 17th Avenue, modest growth is projected for the side-street and the intersection will continue to have sufficient capacity.

Within the 10-year study period, 31 collisions occurred at this intersection and seven resulted in injuries. There were no fatalities associated with this intersection.

Pedestrians are more prominent; however, pedestrian calls have a minimal effect on signal synchronization during peak periods. Increased pedestrian traffic is unlikely to be high enough to have a significant impact on signal operations in the future.

Kennewick Avenue

Kennewick Avenue serves a major commercial area within Kennewick. It is separated from Clearwater Avenue and Vista Way by less than one-quarter mile. The intersection currently operates at an LOS C during the afternoon peak hours, but is projected to fail in 2021 and degrade further to an LOS F by 2032. Outside the afternoon peak hours, the intersection operates within acceptable standards and is projected to continue to do so throughout the study period.

In the afternoon peak period, the heaviest traffic volumes are the US 395 northbound and southbound through movements requiring a substantial amount of green time to service them. However, there are significant volumes for other movements as well, which compete for green time causing the signal operation to degrade. As traffic volumes increase left-turn queues on all legs will extend beyond the existing storage length during peak times. This will block through traffic and adjacent driveways further compounding congestion at the intersection. The queue for southbound US 395 through traffic could extend one-quarter mile all the way to the Clearwater Avenue intersection. The existing intersection configuration is inadequate to service all movements within acceptable LOS standards throughout the study period.

There were 108 collisions related to this intersection within the 10-year collision study period. There were no fatal collisions and only one severe collision (in 2009).

There is significant pedestrian traffic at the intersection with 200 pedestrian calls a day to cross US 395 and 20 to 25 times during the afternoon peak hours. This leads to frequent disruption of the traffic signal synchronization especially during the afternoon peak. There were two pedestrian collisions in the last ten years (in 2005 and 2009) and no bicycle collisions.

Clearwater Avenue/Vista Way

The Clearwater Avenue/Vista Way intersection, along with 27th Avenue, has the highest daily traffic volumes in the signalized corridor. It serves a major commercial area in Kennewick and is less than one-quarter mile from Kennewick Avenue. In 2012, the Clearwater Avenue/Vista Way intersection was operating at an LOS D during the afternoon peak hours, but is projected to fail in 2013 and degrade further to an LOS F by 2032. Outside the afternoon peak hours, the intersection operates within acceptable standards and is projected to do so throughout the study period.

The traffic signal operates as a split phase (Clearwater Avenue and Vista Way have a green light at different times) due to the sharp angle Vista Way intersects US 395. The split phase operation reduces the efficiency of the intersection. There is a double left-turn lane eastbound on Clearwater Avenue (one dedicated left-turn lane and one shared through-left turn lane). The other three legs have a single left-turn lane. In the afternoon peak period, the heaviest traffic movements are the US 395 northbound and southbound through movements requiring a substantial amount of green time to service them, but it is not available due to the signal coordination plan. There are also heavy southbound US 395 right-turns and eastbound Clearwater Avenue left-turns. Other movements have significant traffic volumes as well. These all compete for green time causing the signal operation to degrade.

As traffic volumes increase, queue lengths will extend beyond the existing storage length during peak times. This will block through traffic and adjacent driveways further compounding congestion at the intersection. The

queue for southbound US 395 through traffic could extend one-quarter mile. The existing intersection configuration is inadequate to service all movements within acceptable LOS standards and will continue to fail throughout the study period without improvements.

There were 126 collisions related to this intersection within the 10-year collision study period. There were no fatal collisions and only one severe collision (in 2011).

There is significant pedestrian traffic at the intersection with about 150 pedestrian calls a day to cross US 395 and ten or more during the PM peak hours. This leads to frequent disruption of the traffic signal synchronization especially during the PM peak. There was one pedestrian collision in the last ten years (in 2011) and no bicycle collisions.

Segment 3: Yelm Street

Yelm Street

Yelm Street is the last signalized intersection just south of the SR 240 Interchange. Although Yelm Street is classified as a collector and directs traffic through a residential area, it functions as an arterial due to heavy traffic volumes on the south leg. The Yelm Street intersection is currently failing operating at an LOS E during the afternoon peak hour and is projected to further degrade to an LOS F by 2032. Outside the afternoon peak time, the intersection operates within acceptable standards and is projected to continue to do so during the study period.

In the afternoon peak period, the critical movement involves traffic coming from SR 240 turning left onto Yelm Street conflicting with through traffic on US 395 heading toward SR 240. These opposing movements compete for green time on the traffic signal causing the intersection to operate below standards. The single left-turn lane is 600 feet long. In the afternoon peak, the queue extends 400 feet past the end of the left-turn lane blocking through traffic on the US 395 mainline impeding the mobility and leading to a number of collisions. Further, in 2032, the queue is projected to extend to the Canal Drive Bridge.

Currently, the south leg of Yelm Street has only one southbound lane, and, separate left-turn, through and right-turn lanes in the northbound direction. In the morning peak hour, there are heavy traffic volumes heading north on Yelm Street and turning right onto US 395 heading towards SR 240. This movement has a free right-turn lane and an acceleration lane on US 395. The heavy traffic volumes and merging traffic historically have few collisions. In the morning peak, the intersection operates within an acceptable level of service for the study period. The existing northbound left-turn and through volumes are very low.

There were 124 collisions related to this intersection within the 10-year collision study period. There were no fatal collisions and only one severe collision (in 2010).

Pedestrian traffic at the intersection is light and there were no pedestrian or bicycle collisions within the last ten years. There are only 10 to 14 pedestrian calls a day to cross US 395 and only one or two each during the morning and afternoon peak hours. The small number of pedestrian calls here does not cause a significant impact to the US 395 traffic progression.

Unsignalized Intersections

There are three unsignalized intersections in the study corridor.

Ridgeline Drive

The Ridgeline Drive intersection is the first intersection after the I-82 freeway. It is unsignalized with stop signs on Ridgeline Drive and left-turn lanes in the northbound and southbound directions. There were 13 crashes at the intersection over 10 years and no fatal or severe crashes. There are currently very low traffic volumes on Ridgeline Drive because of the undeveloped in this vicinity. The Ridgeline Drive intersection will experience a large amount of development within the study period. A traffic signal will not be allowed. Grade separation is the ultimate solution that will provide full traffic movements for this intersection. Ridgeline Drive was recently restricted to right-in or right-out movements onto US 395 for safety. Ridgeline Drive connects to Christenson Road, Plaza Way, and Southridge Boulevard on the west and with Bofer Canyon Road, Zintel Way, and Law Lane on the east side. Ridgeline Drive was previously known as Christenson Road.

2nd Avenue

2nd Avenue is a three-legged unsignalized intersection with no local street on the east leg. There is a single left-turn lane in the northbound direction. 2nd Avenue currently operates within acceptable level of service standards and is expected to continue to do so within the study period. There were no collisions related to this intersection within the 10-year collision study period.

Ely Street/Dennis Street

The Ely Street/Dennis Street intersection is an unsignalized right-in/right-out intersection with concrete barrier preventing any left-turns and side-street traffic from crossing US 395. Ely Street is the west leg of the intersection and Dennis Street is the east leg. The Ely Street/Dennis Street intersection is approximately 700 feet north of the Clearwater Avenue/Vista Way intersection and currently operates at an acceptable level of service. It is expected to operate within acceptable level of service standards for the study period. There were only six collisions related to this intersection within the 10-year collision study period and no fatal or severe collisions.

Freeway Segment (SR 240 to I-182)

The 55 mile per hour fully access controlled freeway segment begins with the SR 240 interchange and runs through the US 395/I-182 interchange at the north end of the study corridor. This 2.7 mile four-lane segment includes the SR 240/Columbia Drive interchange, Columbia River Bridge, the Lewis / Sylvester Street interchange, the Court Street interchange, and the I-182 interchange. The spacing between the SR 240 interchange and the Lewis Street / Sylvester Street interchange is approximately 1 mile. The remaining two interchanges are less than 1 mile apart. All off-ramps are exit optional with exception of the Argent Road exit at the I-182 interchange. All ramp connections are single lane and ramp metering is not used within the study corridor.

Ramp merge and diverge points have the most influence on operating efficiency in this segment. The freeway operates at LOS C during the peak hours and is projected to operate at LOS D in 2032. With exception of one location within the SR 240 interchange, today all interchanges operate within the accepted LOS. Several locations are projected to fall below the acceptable LOS threshold by 2032; however, none of the ramps are projected to cause traffic to back-up onto the highway.

SR 240 Interchange

The SR 240 interchange operates within the LOS standard except for one location. The Columbia Drive merge to northbound US 395 operates at a low LOS D/high E during the afternoon peak hour. Outside the afternoon peak hour, the interchange operates within the LOS standard and the ramp movements are projected to do so throughout the study period.

In 2009, the SR 240 interchange was reconstructed to provide two continuous southbound lanes on US 395 from the Columbia River Bridge into Kennewick. Columbia Drive was reconfigured as a result of this modification. Due to space constraints of the railroad and Columbia River Bridge, the ramp connections to US 395 were not changed. However, the left side SR 240 to northbound US 395 connection was changed from an add-lane to a merge.

Upon completion of the interchange reconstruction, unexpected collisions occurred at the SR 240 to northbound US 395 merge. In 2010 the northbound lanes were restriped to improve this safety issue. This changed the SR 240 merge back to an add-lane and required a reduction on US 395 from two northbound lanes to one. The mainline merge to the single lane occurs just prior to the Columbia Drive on-ramp.

Restriping the northbound lanes of US 395 improved safety but increased congestion for brief periods during the afternoon peak hours between Yelm Street and the Columbia River Bridge. Motorists move into the inside US 395 lane after the Yelm Street intersection in anticipation of the single lane merge. Traffic from the Columbia Drive on-ramp further contributes to this congestion. During the PM peak period, drivers merging from the ramp have fewer gaps in the highway traffic stream, causing brief interruptions on the highway and the ramp. The effect of the upstream metering of the Yelm Street signal improves the merge operation at the ramp. The LOS is projected to decline further as traffic volumes increase.

The SR 240 off-ramp from southbound US 395 is posted with a 35 mph speed advisory sign. The close proximity of this exit to the end of the Columbia River Bridge contributes to reduced speeds and congestion on the bridge for brief periods during peak hours. However, since reconstruction, collision rates on the bridge decreased 76% in the southbound direction and 21% in the northbound direction. Collision rates also decreased at the SR 240 and Columbia Drive northbound on-ramp connections. There have been no collisions on the highway associated with the three off-ramps. The two northbound on-ramp connections had one collision each, and the southbound on-ramp connection from Columbia Drive/SR 240 had four. In the case of the latter, the majority of those collisions were sideswipes with mainline vehicles.

Columbia River Bridge

This four-lane bridge with reduced shoulders carries the highest amount of traffic within the study corridor, at 59,000 daily vehicles, and is nearing capacity in the peak hours. The afternoon peak period has 37% more traffic than the morning peak period and the northbound and southbound volumes are equivalent during each period. The bridge operates at LOS D during the afternoon peak hour in both directions and is projected to fall to LOS F in 2020 during the same period. Outside the afternoon peak hours, the bridge operates within the LOS standard and is projected to do so throughout the study period.

Average speed over the bridge is 52 mph in the morning peak period and 51 mph in the afternoon peak period, for both directions. While congestion in the northbound direction is minimal during the afternoon peak hours, there is a brief period of congestion and reduced speeds in the southbound direction, influenced primarily by the SR 240 off-ramp. Some platooning also occurs.

Since 2010, there were 51 collisions on the bridge and 67% of those were property damage only. Rear-end collisions were the most common type, at 65% of all collisions. There were no serious injuries or fatalities associated with these collisions. The bridge section accounted for 35% of all collisions within the freeway segment. The number of southbound collisions decreased after reconstruction of the SR 240 interchange and is now nearly equal to the number occurring in the northbound direction. Motorists can expect congestion and the number of collisions to increase as the bridge approaches full capacity in the peak hours.

Lewis Street/Sylvester Street Interchange

The Lewis Street interchange is not a full service interchange in that it only serves the two movements to and from Lewis Street. The northbound off-ramp and the southbound on-ramp are non-standard left-off and left-on configurations within close proximity of the bridge. The northbound off-ramp is posted with a 45 mph speed advisory sign. Both ramps operate today at LOS D during the afternoon peak hour. They are projected to fail by 2020, falling to LOS F during the afternoon peak hour. Outside of the afternoon peak hour, the ramps are projected to operate within the LOS standard through 2032.

The on-ramp from Lewis Street to southbound US 395 merges immediately before the bridge. During peak hours, merging traffic competes for small gaps in this high traffic volume section near the bridge approach, resulting in interruption to traffic progression on the highway. Short traffic platoons occur on the ramp during peak hours due to the traffic signal on Lewis Street near the beginning of the ramp. A ramp meter is installed at this location but is not currently in use. Since 2010, there were three collisions on mainline associated with this ramp, resulting in property damage only. The ramp had six collisions and five of those were of the rear-end type. There were no serious injuries or fatalities. In the northbound direction, one non-injury collision occurred on the exit ramp to Lewis Street. There were no collisions on mainline associated with the ramp. As traffic volumes increase in the future, congestion and collisions are anticipated to increase proportionately.

Immediately north of the Lewis Street ramps in the northbound direction is the only exit ramp to Sylvester Street. This ramp operates at LOS C but is projected to fail in 2028, dropping to LOS E during the afternoon peak hour. The ramp is projected to operate within the LOS standard through 2032 outside of the afternoon peak periods. The ramp diverges from mainline within a curve to the right and is posted with a 25 mph exit advisory plaque. There are no on-ramps to the highway from Sylvester Street.

The end of the Sylvester Street ramp is stop controlled at the intersection with Lewis Street. It operates at LOS D in the afternoon peak hour with queue lengths of 150 feet. The intersection is projected to fall to LOS F in 2015 in the afternoon peak hour, with queue lengths near 700 feet. The ramp is approximately 1000 feet long. The afternoon peak hour volumes are approximately twice that of the morning peak hour volumes, and the right movement onto Sylvester Street carries approximately twice the traffic volume as the left movement. Delays from the left turning movement negatively affect the right turning movement due to the ramp being a single lane configuration. The intersection is projected to operate within the LOS standard through 2032 outside of the afternoon peak periods.

During the 10 year study period there were no reported collisions on mainline associated with the Sylvester Street ramp connection. Seven collisions occurred on the ramp and six of those were property damage only. Most collisions occurred near the ramp terminal. There were no serious injuries or fatalities associated with this ramp. Pedestrian facilities are not provided within the Lewis Street interchange.

Court Street Interchange

The Court Street interchange is a conventional diamond interchange configuration with an additional loop ramp for the westbound Court Street to southbound US 395. The interchange, including ramps and ramp terminals, operates within the LOS standard during the peak hours and is projected to do so through 2032. Drivers experience mostly free-flow conditions with few interruptions. The ramp terminals are signalized and include crosswalks. Traffic movements from the ramps onto Court Street experience short delays. A sidewalk is provided along the south side of Court Street east of US 395 and along the north side west of the highway. A pedestrian bridge spans US 395 on the south side of Court Street.

During the study period, there were 20 collisions related to the ramp connections, with 12 of those associated with the southbound on-ramp from eastbound Court Street. There were no fatalities or disabling injuries

resulting from these collisions. At the end of the northbound US 395 off-ramp, there was one collision involving a pedestrian, and several rear-end collisions. The end of the southbound off-ramp has experienced few collisions. There have been no recorded bicycle collisions at the ramp terminals within the study period. Pedestrian traffic is low in this interchange and not expected to grow significantly.

Affiliated with the Court Street interchange is the short northbound weave and southbound weave between the Court Street interchange and the I-182 interchange. The southbound weave operates within the LOS standard during the peak hours and is projected to do so throughout the study period. The northbound weave also operates within the LOS standards but is projected to fail in 2020 and fall to LOS F in 2023. Included with this weave section is the movement between the Court Street on-ramp and the off-ramp to eastbound I-182, which is striped as an add lane. The off-ramp to eastbound I-182 is posted with a 40 mph speed advisory sign.

In the afternoon peak hour, nearly 850 vehicles from mainline US 395 weave with 460 vehicles from the Court Street on-ramp, then merge with 230 vehicles already in the add lane to eastbound I-182. These movements are done within a distance of 500 feet. This weave increases congestion and has slowed traffic on the highway to less than 30 mph for this movement in the afternoon peak hour. The morning peak hour sees about 30% less traffic. Outside of the afternoon peak hour, the LOS is projected to remain within the LOS standard through 2032.

In the two weave sections collisions have been few. During the 10 year safety study period there were six northbound collisions and seven southbound. Of those, 77% were property damage only. There were no serious injuries or fatalities.

I-182 Interchange – Argent Road Off-Ramp

Within the I-182 interchange is the US 395 northbound off-ramp to Argent Road. The outside lane on US 395 is striped as a drop lane to Argent road and the exit only lane is posted with a 45 mph speed advisory sign. Constructed in 2006, this ramp improved access from US 395 to areas north of I-182 and improved the LOS for the 20th Avenue interchange. This connection operates within the acceptable LOS standard and is projected to do so through 2025.

Motorists experience generally free-flowing characteristics with few conflicts. There is not a significant collision history associated with this ramp, and no serious injuries or fatalities have been reported.

The ramp terminates at the signalized intersection with Argent Road and is configured with two left turn lanes, a through lane and a right turn taper. The Argent Road intersection operates at LOS B during both morning and afternoon peak hours. In 2025 the intersection is projected to remain at LOS B in the morning peak hour but drop to LOS C in the afternoon peak hour. The intersection includes crosswalks at all four quadrants, although pedestrian traffic is light at this location. There have not been any recorded collisions involving a bicycle or pedestrian at the ramp terminal since it was constructed.

I-182 Interchange – US 395 to 20th Avenue Weave

The short weave section on eastbound I-182 between the US 395 and 20th Avenue interchanges currently operates at an acceptable LOS but is expected to drop to LOS E in 2025. The on-ramp from US 395 and the off-ramp to 20th Avenue within this weave section are served by a collector-distributor (C-D) lane adjacent to I-182. The close ramp spacing creates an inadequate weave length for traffic leaving and entering the C-D lane leading to interruptions in flow. The weave length does not meet current WSDOT standards. Reported collisions related to the weave have been few however.

The roadway geometrics will not adequately handle traffic volumes projected past 2025 resulting in reduced speeds, congestion, and the potential for an increase in collisions.

References

WSDOT GIS Workbench, 2010
WSDOT TDO Collision Data, 2010
WSDOT US 395 Corridor Study, 2011